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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,144	04/17/2001	Hiroko Iwasaki	2271/50717-AY	7345
7590 01/24/2008				
RICHARD F. JAWORSKI		EXAMINER		
Cooper & Dunham LLP		MCPHERSON, JOHN A		
1185 Avenue of the Americas		ART UNIT PAPER NUMBER		
New York, NY 10036		1795		
			MAIL DATE	DELIVERY MODE
			01/24/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/836,144

**Applicant(s)**

IWASAKI, HIROKO

**Examiner**

John A. McPherson

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/18/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12, 16-21 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12, 16-21 and 24-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. This Office Action is responsive to the Amendment filed 10/18/07.
2. The Amendment filed 10/18/07 successfully overcome the rejections set forth in paragraphs 2, 5 and 6. Accordingly, these rejections are withdrawn.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12, 16-21 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,902,584 to Uchiyama et al. (Uchiyama), utilizing US 4,983,505 to Higuchi et al. (Higuchi) as a teaching reference, in view of US 5,156,693 to Ide et al. [reference AE of the Information Disclosure Statement filed 4/17/01] (Ide) for the reasons of record as set forth in paragraph 3 of the Office Action mailed 7/27/07, and as further discussed below.

4. Claims 12, 16, 18-21 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,156,693 to Ide et al. [reference AE of the Information Disclosure Statement filed 4/17/01] (Ide) in view of US 4,920,007 to Sawamura et al.

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(Sawamura) for the reasons of record as set forth in paragraph 3 of the Office Action mailed 7/27/07, and as further discussed below.

### ***Response to Arguments***

5. Applicant's arguments filed 10/18/07 have been fully considered but they are not persuasive.

With respect to the 35 USC 103 rejections of record, Applicant argues that the cited references, taken singularly or in combination, do not teach or suggest an optical phase variation type data recording medium wherein a first protection layer is configured to have a thermal conductivity matching the light-to-heat conversion efficiency of the phase-variation type recording layer. However, it is the position of the Examiner that this relationship is inherently present in the cited prior art combinations, because thermal conductivity and light-to-heat conversion efficiency are material-dependent properties, and the same materials are utilized in both the present invention and the applied prior art.

Furthermore, Applicant argues that the subject matter of the present invention is an optical phase variation type data recording medium, in contrast to Uchiyama and Sawamura, which are directed to magneto-optical recording media. Therefore, because of the differing concerns between the phase-change and opto-magnetic recording media, no motivation exists to combine a protection layer designed to prevent oxidation of ferromagnetic metals in order to preserve the metals magnetic characteristics to a recording medium in which the major concern is the accumulation of heat in the

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recording layer comprised of non-ferromagnetic metals that exhibit no positive magnetic susceptibility.

However, Uchiyama is clearly not limited to magneto-optical recording media. Uchiyama additionally teaches that the protective layer disclosed therein is useful in a phase conversion type recording medium. This disclosed phase conversion type recording medium is a phase change recording media which relies upon the mechanism of a crystalline to amorphous phase change, in which information is reproduced on the basis of the change in reflectance that occurs in response to the phase change, as explained by Higuchi.

With respect to the rejection over Ide in view of Sawamura, it is the position of the Examiner that the prior art recognizes the benefits of utilizing the same improved protective layer in both phase-change and magneto-optical recording media. For example, Uchiyama teaches a protective layer useful with either a magneto-optical recording layer or a phase conversion type recording layer (see above). Similarly, US 4,847,132 to Takao et al. (cited by the Examiner in the Office Action mailed 9/16/03), which is an English-language member in the same patent family as JP 63-259855 (cited in background section of the present specification), discloses a protective layer for optical recording media, wherein the recording layer is exemplified by either a phase change type material (e.g. see Example 1) or a magneto-optical material (e.g. see Example 8). Furthermore, see Higuchi, which also discloses a protective layer for both magneto-optical and phase change recording media.

With respect to the 35 USC 112, first paragraph rejection of claims 24-27, the Amendment dated 10/18/07 has successfully overcome this rejection by removing the subject matter which was not described in the specification. Accordingly, since claims 24-27 are no longer limited by the relative thermal conductivity of the first and second protective layers, the rejections set forth in paragraphs 5 and 6 of the Office Action mailed 7/27/07 addressing this limitation are withdrawn. Claims 24-27 are now included in the rejections set forth above, because the remaining limitations requiring the presence of a substrate and a second protection layer (claims 24 and 26) and specifying the location of the first protection layer (claims 25 and 27) are taught by Ide. For example, see column 4, line 41-50.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

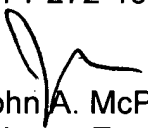
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
John A. McPherson  
Primary Examiner  
Art Unit 1795

JAM  
1/14/07